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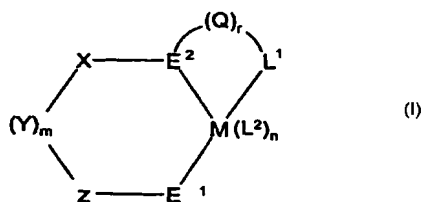
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(54) Title: TRANSITION METAL COMPLEXES, ESPECIALLY IRON COMPLEXES, USED AS A CATALYST COMPONENT IN THE POLYMERISATION OF OLEFINS



(57) Abstract: The present invention relates to compounds of formula (I) wherein each of X, Y, Z is independently selected from O, S, NR¹, CR²R³, N and CR⁴, and where optionally X-Y, Y-Z, Z-E¹ and X-E² each independently form part of a saturated or unsaturated ring system which may be substituted or unsubstituted; m is 0 or 1; M is a metal selected from Ti[III], Ti[IV], Fe[II], Fe[III], Co[I], Co[II], Co[III], Ni[II], Cr[III], Mn[II], Mn[III], Mn[IV], Ru[II], Ru[III], Ru[IV], Pd[II], V[II], V[III], V[IV], V[V], Cu[I], Cu[II], Rh[I], Rh[III], Mo[III], Mo[V], Re[I] and Re[II]; each of E¹ and E² is independently selected from O, S, NR⁵, N, P, PR⁶, where at least one of either E¹ or E² carries a formal negative charge; L² is a one electron donor ligand; n is zero or an integer such that the compound has an overall charge of zero or +1; L¹ is NR⁷R⁸, PR⁷R⁸, OR⁷, SR⁷, O, S or NR¹⁶, imidazolyl, pyridinyl, benzimidazolyl or quinolinyl; each of R¹⁻⁸ and R¹⁶ is independently H or a hydrocarbyl group; Q is a linker group; and r is 0 or 1. Further aspects of the invention relate to catalyst compositions comprising compounds of formula (I), and their use in the polymerisation of olefinically unsaturated monomers.